

KOBYLYANSKIY, D., kand. tekhn. nauk; BONDIN, Yu.; NAYMAN, I.; RAYKHMAN, S.

Technological information. Okhr. truda i sots. strakh. 6
no.3:33-37 Mr '63. (MIRA 16:4)

(Industrial safety) (Work clothes)

RAYKHMAN, S. (Moskva)

To avoid overheating. Okhr.truda i sots.strakh. 5 no.10:40 0
'62. (MIRA 15:11)

(Clothing, Protective)

DENISOVA, V., inzh.; RAYKHMAN, S., starshiy nauchnyy sotrudnik; GLAGOLEVA, T.,
kand.tekhn.nauk; EL'TERMAN, V., kand.tekhn.nauk

Technical information. Okhr.truda i sots.strakh. 5 no.4:32-35
Ap '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy institut tekhnologii avtomobil'-
noy promyshlennosti (for Denisova). 2. Vsesoyuznyy nauchno-
issledovatel'skiy institut zheleznodorozhnogo transporta (for
Raykhman).

(Technological innovations)

MINSKER, Kh., inzhener; RAYKHMAN, S., inzhener.

Local binding materials. Stroitel' 2 no.7:24 J1 ' 56. (MIRA 10:1)
(Binding materials)

L 41176-65 EWG(j)/EWT(d)/EWG(r)/EWT(1)/FS(v)-3/EEC(k)-2/EWG(v)/EEC-4/
 S/0275/64/000/007/V004/V004 43
 ACCESSION NR: AR4045748
 EWG(a)-2/EEG(c)-2/EEC-2/EWG(c) Pe-5/Pq-4/Pac-4/Pae-2 B
 SOURCE: Ref. zh. Elektronika i yeye primeneniye. Svodnyy tom, Abs. TV29

AUTHOR: Gumener, P. I.; Poltorak, S. A.; Rapoport, K. A.; Raykman, S. P.

TITLE: Methods of radiotelemetric investigations of the temperature of skin, body, and air

CITED SOURCE: Sb. Radiotelemetriya v fiziol. i med., Sverdlovsk, 1963, 101-108

TOPIC TAGS: telemetry, telemeter, physiological test

TRANSLATION: The transmitting part of a modified system intended for radiotelemetric study of the temperature of the body, skin, air under and over clothing consists of 17 semiconductor sensors, an automatic switch (time relays and a step selector), an RC electron-tube oscillator, an amplifier, and a semiconductor AM USW transmitter. Each sensor excites the RC oscillator in its own frequency band. The oscillator, the amplifier, and the supply batteries are fastened to the belt of the subject, while the transmitter is mounted as the subject's headgear. The receiving part comprises a receiver and a dekatron pulse counter. A time relay

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ACCESSION NR: AR4045748

starts the counter for 10 minutes on appearance of a sensor signal. The counter is cleared by the investigator. The signal's origin can be determined either visually, or on a cathode-ray oscilloscope, or by hearing. Tests have shown that the temperature can be measured at a distance of 20 m with an error of 0.1C. Bibliography: 3 titles.

SUB CODE: EC,LS

ENCL: 00

ML
Card 2/2

L 58980-65

ACCESSION NR: AP5019024

UR/0286/65/000/012/0050/0050
615.472

AUTHOR: Raykhman, S. P.; Makarova, Ye. D.; Rapoport, K. A.

TITLE: A device for fastening a set of sensing elements to the human skin. Class
30, No. 171963

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 50

TOPIC TAGS: physiology, physiological testing

ABSTRACT: This Author's Certificate introduces: 1. A device for fastening a set of sensing elements to the human skin. The device contains metal fastening clips and joints. The device is designed so that a person being tested can fasten the necessary number of sensing elements rapidly and tightly to given sections of his own skin during physiological studies. Provision is made also for preventing dislocation of wires or breaking them off and interrupting the electrical contact. The leads for the sensing elements are mounted in non-stretching channels formed by fabric strips sewn onto the undergarment, and the elements themselves are fastened at the ends of the channels. 2. A modification of this device in which the elastic

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L 58980-65

ACCESSION NR: AP5019024

cords for pressing the electrodes against the skin of the person being tested are made in the form of a tape with fasteners for regulating its length. These tapes are located in the channels for preventing dislocation of the wires.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (All-Union Scientific Research Institute of Railway Transportation); Institut obshchey i kommunal'noy gigiyeny im. Sysina AMN SSSR (Institute of Social and Communal Hygiene, AMN SSSR)

SUBMITTED: 14Jan64

ENCL: 01

SUB CODE: LS

NO REF SOV: 000

OTHER: 000

Card 2/3

L 58980-65

ACCESSION NR: AP5019024

ENCLOSURE: 01

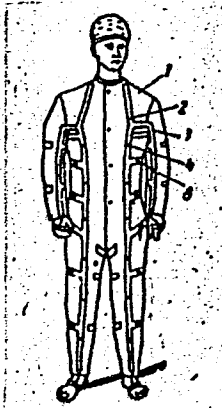


Fig. 1--undergarment; 2--longitudinal strips;
3--transverse strips; 4--button; 5--electrode;
6--lead; 7--elastic cords; 8--fasteners

Card *dm* 3/3

RAYKHMAN, S.P.

Special clothing for protection against the action of preservative
oils. Trudy TSNII MPS no.224:105-109 '62. (MIRA 15:4)
(Wood preservatives--Safety measures) (Clothing, Protective)

RAYKHMEN, S.P.; PETUSHKOVA, I.K., red.; GROMOV, Yu.V., tekhn. red.

[Protective air-filled suits for workers engaged in tank cleaning] Zashchitnyi ventiliruemyi kostium dlia rabochikh, zaniatykh o chistkoi tsistern. Moskva, Transzheldorizdat, 1962. 20 p.
(MIRA 15:12)

(Clothing, Protective)

DEKHTYARENKO, P.I. (Kiyev); KOZUBOVSKIY, S.F. [Kozubovs'kyl, S.F.] (Kiyev);
MELESHEV, A.M. [Mielieshev, A.M.] (Kiyev); RAYKHMAN, S.R. (Kiyev)

Electronic differentiating network for automatic measurement
of rolling speed. Avtomatyka no.2:63-68 '62. (MIRA 15:5)
(Pulse circuits) (Rolling mills) (Automatic control)

13.2520

3, 102/80/000/003/006/006
C 111/ C 333

AUTHORS: Nechayev, G. K., Raykhman, S. R. (Kyyiv)

TITLE: Temperature Regulator of Gyroscopic Instruments

PERIODICAL: Avtomatika, 1960, No. 3, pp. 70-75

TEXT: The authors propose a three-point regulator for stabilizing the temperature of gyroscopic instruments dependent on temperature. They use a thermal resistance as measuring instrument. A calculation of the optimum parameters for the bridge arms shows that an unsymmetrical bridge is most favorable (contrary to J. Douce 'Ref.2) who recommends a symmetric bridge). Thereby the sensitivity can exceed that of the Doucet regulator (Ref.2) up to 8 times. Because of the high sensitivity a two-stage amplifier with a resonance circuit for noise suppression is sufficient for amplifying the output signal. The work of the regulator is controlled by means of four thermal resistances which are installed at different points of the instrument and which allow a temperature measurement with accuracy of 0.01°C . As a result of tests under various working conditions it was found that the regulator attains the given precision of $\pm 0.1^{\circ}\text{C}$.

Card 1/2

84285

S/102/60/000/003/006/006
C 111/ C 333

Temperature Regulator of Gyroscopic Instruments

There are 4 figures, 1 table, and 3 references: 1 Soviet, 1 French
and 1 American.

SUBMITTED: July 1, 1959

X

Card 2/2

83983

S/119/60/000/010/006/0:4
B012/B063

9.2586
9.7800

AUTHORS: Nechayev, G. K., Candidate of Technical Sciences, and
Raykhman, S. R., Engineer

TITLE: The Use of a Relaxation Generator in an Apparatus
Producing Numerical Codes of the Values of Physical
Quantities 16

PERIODICAL: Priborostroyeniye, 1960, No. 10, pp. 16 - 18

TEXT: In the existing apparatus used to produce numerical codes of the values of physical quantities, transformation takes place in two stages. First, a voltage is generated, which is a function of the value of the quantity to be transformed. Then, this voltage is transformed into a numerical code. The present paper shows a possibility of obtaining numerical codes directly without transformation into a voltage. The block diagram of such an apparatus is shown in Fig. 1 and explained. The mode of operation of the scheme is also described. One of the elements of this apparatus is the transforming pulse generator whose oscillation frequency is a function of a certain variable resistor. The well-known blocking

Card 1/3

83983

The Use of a Relaxation Generator in an
Apparatus Producing Numerical Codes of the
Values of Physical Quantities

S/119/60/000/010/006/014
B012/B063

oscillator or multivibrator circuits are used for transformation. These circuits are particularly advantageous because pulses are directly obtained at their outputs. The two circuits are examined. The circuit diagram of the blocking generator is shown in Fig. 2 and described. On the basis of the data given in this paper, the authors carried out an approximate calculation of the blocking generator according to a method described by L. A. Meyerovich (Ref., Footnote on p. 17). Fig. 3 shows two curves one of which was obtained experimentally. It expresses the dependence of the blocking generator frequency on the variable resistor. The second curve shows the temperature dependence of this frequency for the case in which a variable resistor is taken as a thermistor. It is found that in the range from 10°C to about 70°C the frequency spread attains up to 9%. The circuit diagram of the multivibrator is shown in Fig. 4. The positive bias is given with the help of the variable resistor in the network. Also in this case, a thermistor is used as a variable resistor. Fig. 5 shows the dependence of the frequency of the generated pulse on the variable resistor. A study of this circuit diagram indicates that the frequency spread is about 15% when the tube parameters

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The Use of a Relaxation Generator in an
Apparatus Producing Numerical Codes of the
Values of Physical Quantities

S/119/60/000/010/006/014
B012/B063

are changed within the limits of technical conditions. It is found that the stability of the dependence of frequency on the variable resistor is the same for both circuits. The circuit of the blocking generator has the following advantage: a smaller number of parts and the possibility of obtaining pulses of any polarity from the transformer winding which is connected to the anode circuit. This circuit worked continuously for one month, and showed satisfactory stability. There are 5 figures and 1 Soviet reference.

X

Card 3/3

SOURCE CODE: UR/0102/00/000/000/00101

ACC NR: AP7008774

AUTHOR: Raykhman, S. R. (Kiev)

ORG: none

TITLE: A universal nonlinear ac function generator

SOURCE: Avtomatyka, no. 6, 1966, 79-82

TOPIC TAGS: linear approximation, diode electron tube, alternating current, mean square error, automatic control system

ABSTRACT: The device was developed by the Institute of Cybernetics of the Academy of Sciences UkrSSR for combustion optimization in a boiler assembly (see Fig. 1). Cells 3-5 are exact duplicates of cell 2, and only differ in their reactances. The generator is designed for a piece-wise linear approximation of the given relationships. Its advantage compared to other nonlinear generators is the absence of zero drift. Laboratory and industrial tests showed it to be reliable; the mean square error of the approximation of the curves does not exceed 2.0% for the entire range. While ac generators are as a rule somewhat less accurate with respect to the piece-wise linear approximation as a result of the nonlinearities introduced by the diode subassemblies, this generator is more stable and reliable than dc generators and can be effectively used in industrial automatic control systems. Orig. art. has: 3 figures.

Card 1/2

ACC NR: AP7006774

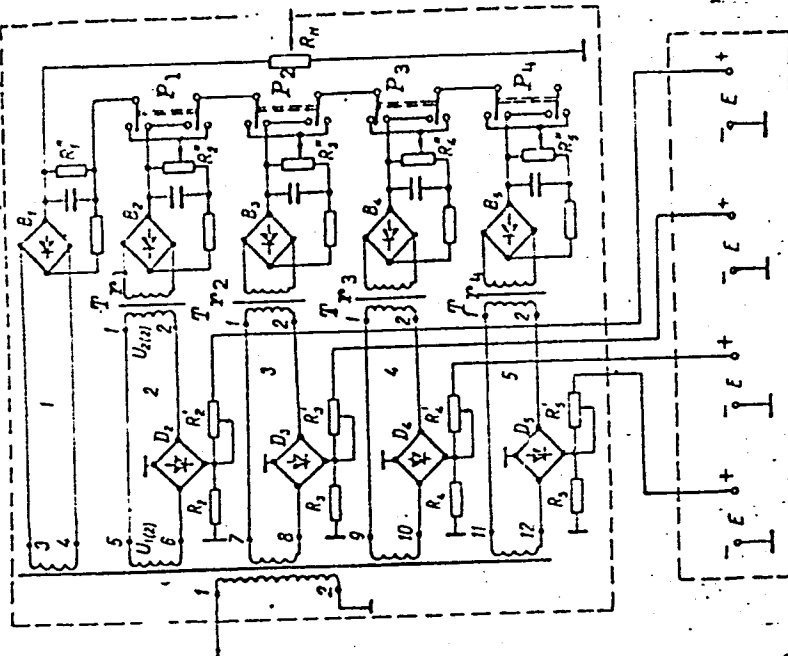


Fig. 1. Simplified block diagram of the universal nonlinear ac generator: T --input transformers; D --filters; R --resistances; P --polarity switching circuits.

SUB CODE: 09,13/

SUBM DATE: 16Feb66/

ORIG REF: 003

Card 2/2

NECHAYEV, G.K.; RAYKHMAN, S.R.

Using a relaxation oscillator in units for obtaining digital codes
for values of physical quantities. Priboroostroenie no.10:16-18
O '60. (MIRA 13:11)

(Oscillators, Electron-tube)
(Electronic control)

RAYKHMAN, S.S.

BERMAN, L.S.; RAYKHMAN, S.S.; KHALFIN, Z.A.

Balance modulator based on the Hall effect in semiconductors. Zhur.
tekh. fiz. 27 no.7:1597-1598 J1 '57. (MIRA 10:9)

1. Institut poluprovodnikov AN SSSR, Leningrad.
(Hall effect) (Semiconductors)

RAYKHMAN 53
AUTHORS: Berman, L. S., Raykhman, S. S.,
Khalfin, Z. A.

57-27-7-28/40

TITLE: A Balanced Modulator Based on the Hall-Effect in
Semiconductors (Balansnyy modulyator na effekte Kholla
v poluprovodnikakh).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1957, Vol. 57, Nr 7,
pp. 1597-1598 (USSR)

ABSTRACT: It is shown that the Hall-effect permits to build up a
scheme of a balanced modulator, as the Hall-effect yields
a sum and a difference of two frequencies which are indeed
required for a balanced modulator. The experiments
described here were performed in order to prove that the
linearity of the transformation is the advantage of such
a modulator, i. e. that only the sum-frequency ($f_0 + f_1$) and
the difference-frequency ($f_0 - f_1$) are present at the inlet
and that all other frequencies are absent. The scheme of a
balanced modulator was investigated with the use of a film-
transmitter of HgSe. The experiments showed that the linearity
of the transformation amounted to 2000 (66 db). This can also
be attained in balanced modulators of the common type.

Card 1/2

A Balanced Modulator Based on the Hall-Effect in
Semiconductors

57-27-7-28/40

Besides the scheme of a balanced modulator with a transmitter of n-germanium was investigated. In this case the linearity was 25 (28) db, i.e. considerably less than in the usual schemes. Thus it may be said that the balanced modulators on the basis of the Hall-effect are inferior to the usual balanced modulators with regard to sensitivity and that they offer no advantages with respect to the linearity of transformation. There is 1 figures.

ASSOCIATION: Institute for Semiconductors AS USSR, Leningrad
(Institut poluprovodnikov AN SSSR, Leningrad)

SUBMITTED: February 15, 1957

AVAILABLE: Library of Congress

Card 2/2

1. Modulators-Test results
2. Modulators-Performance
3. Semiconductors-Applications

NECHAYEV, G.K. [Nechaiev, H.K.]; (Kiyev), RAYKHMAN, S.R. (Kiyev)

Temperature regulator for a gyroscopic instrument. Avtomatyka
no.3:70-75 '60. (MIRA 13:10)

(Temperature regulators) (Electronic instruments)
(Gyroscope)

ACC NR: AP7003010

SOURCE CODE: UR/0413/66/000/024/0157/0157

INVENTORS: Raykhman, Ya. A.; Gol'dberg, V. K.; Kirilyuk, N. I.; Lopato, G. P.;
Buznikov, Yu. N.; Shilik, K. K.

ORG: none

TITLE: Electronic logic unit - Logikon. Class 42, No. 150302

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 157

TOPIC TAGS: logic element, electron beam, electron accelerator

ABSTRACT: This Author Certificate presents an electronic logic unit - logikon, which utilizes the switching properties of the trochoidal electron beam of a ring trochotron. To increase the response rate and to widen the logic possibilities, an electrode for switching the beam according to the input signal is placed in each chamber of the ring trochotron. To decrease the weight and dimensions, the container is made of magnetized ferroceramic.

SUB CODE: 09/

SUBM DATE: 23Nov59

Card 1/1

RAYKHMAN, Ya.G.

Characteristics of lung cancer in silicosis (according to the
records of the Krivoy Rog iron ore basin). Vop. onk. 11 no.12:
69-73 '65. (MIRA 19:1)

1. Iz Krivorozhskogo gorodskogo onkologicheskogo dispansera
(glavnyy vrach - M.A. Zybina).

RAYKHMAN, Ye., liteyshchik, udarnik kommunisticheskogo truda; GARCHENKO,;
ZINGER, M.; SYAGAYLO, I.; BUZYLEV, I.

Crowded and unhappy. Okhr.truda i sots.strakh. 4 no.7:30-32 J1
'61. (MIRA 14:7)

1. Tekhnicheskii inspektor Dnepropetrovskogo oblsovprofa (for Garchenko). 2. Pomoshchnik glavnogo inzhenera Dnepropetrovskogo tramvayno-trolleybusnogo upravleniya po tekhnike bezopasnosti (for Zinger). 3. Sotrudnik mnogotirazhnoy gazety "Elektrotransportnik" (for Syagaylo). 4. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'noye strakhovaniye" (for Buzylev).
(Dnepropetrovsk—City traffic)

RAYKHMAN, Ye.; BELINSKIY, V.; LUKANIN, K.; RADONOK, B.

A comprehensive plan taken by public initiative. Sov.
profsoiuzy 17 no. 3:38-39 P '61. (MIRA 14:2)

1. Predsedatel' zavkoma Smolenskogo keramicheskogo zavoda (for Raykhman). 2. Obshchestvennyy inspektor keramicheskogo zavoda (for Belinskiy). 3. Predsedatel postroykoma SMU-3 tresta "Smolenskpromstroy" (for Lukanin). 4. Obshchestvennyy inspektor "SMU-3 tresta "Smolenskpromstroy" (for Radonok).
(Smolensk—Clay industries—Hygienic aspects)

KEDRINA, G.A.; RAYKHMAN, Ye.S.; SHABALIN, V.V.

The LK, a new pore filler. Der. prom. 14 no.2:24 F '65.
(MIRA 18:6)

KEYDRINA, G.A.; RAYKHMAN, Ye.S.; SHABALIN, V.V.

Finishing furniture with aqueous emulsion styrene-butadiene
paints. Der. prom. 13 no.6:21 Je '64. (MIRA 17:6)

BERKINSON, A. G.

"The Problem of Inspection Standards in the Selection and Classification of Commodity Design Tests," Za Ekon. Top., No. 3, 1948. Engr.

Y
RAIKHSFEL'D, A.

Mezhraionnaia sviaz'Srednei Azii s ostal'nymi chastiami Soiuza. [Interregional connections of Central Asiz with other parts of the Union]. (Rekonstruktsiia transporta, 1932, no. 9, p. 4-10, map).

DLC: HE7.R4

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

RAYKESFIELD, W.O.; GRIGOR'YEVA, L.A.

Aryl(aryl)hydrazonolysiloxanes. Part 3. Synthesis, properties
(1981-1982) (1981-1982)

Aryl(aryl)hydrazonolysiloxanes. Part 4. 1981-1982-1983

1. Being gradually, continuously, and steadily increasing.

HAZKHSHTAT, G.N.; SHAPORIN, M.F.; FIKINA, R.F.; RYUMINA, M.C.;
BERIOVICH, E.P.

Epidemiological effects of intradermal vaccinations with
live epidemic paratyphoid vaccine (inactivated), epid. 1. mean.
AZ No. 10 12-11. (MIRA 18:11)

1. Sanitarno-epidemiolog. i. g. Stantsiya Sverdlovskego
rayona Moskva, Sanit. i. g. Moskva. 1960.

RAYKHSHTAT, G.N.; CHAPIRO, A.A.; RYUMINA, M.G.; LEYKINA, A.F.; BERLOVICH,
E.A.; KARASEVA, M.F.

Expansion of the age group of children subject to whooping cough
vaccination. Vop. okh. mat. i det. 8 no.7:76-78 J1 '63.
(MIRA 17:2)

1. Iz sanitarno-epidemiologicheskoy stantsii (glavnyy vrach M.
G. Gilei's) Sverdlovskogo rayona Moskvyy.

RAYKHSHTAT, G.N.; SHAPIRO, A.A.; LEYKINA, R.F.; KARASEVA, M.F.; BERLOVICH, E.A.;
RYUMINA, M.G.; BROKER, T.N.; KUZNETSOVA, N.S.

Epidemiological effectiveness of preventive bacteriophage treatment
against dysentery in pediatric institutions. Zhur. mikrobiol., epid.
i immun. 42 no.8:139-141 Ag '65. (MIRA 18:9)

1. Sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo rayona
Moskvy.

RAYKHSHTAT, G.N.

Diagnosis of dysentery. Zhur.mikrobiol., epid, i immun. 42
no.9:134-137 S '65. (MIRA 18:12)

1. Sanitarno-epidemiologicheskaya stantsiya rayona Moskvyy.
Submitted August 5, 1964.

RAYKHSHTAT, G.N.; VEEER, L.G., dots., red.

[Organization of epidemic control measures in the foci
of infectious diseases] Organizatsiia protivoepidemicha-
skikh meropriiatii v ochagakh infektsionnykh zabolevani.1.
Moskva, TSentr. in-t usovershenstvovaniia vrachei, 1965.
58 p. (MIRA 18:10)

MASTYUKOVA, Yu.N.; SARAYEVA, N.T.; KOZACHENKO, N.F.; YAROSLAVSKAYA, N.V.;
RAYKHSHTADT, G.N.; SHVARTSMAN, M.N.

Study of the results of smallpox vaccination. Report No.2.
Vop. virus. 6 no.5:573-576 S-0 '61. (MIRA 15:1)

1. Moskovskiy institut epidemiologii, mikrobiologii i gigieny i
sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo rayona Moskvyy.
(SMALLPOX)

MASTYUKOVA, Yu.N.; SARAYEVA, N.T.; KAZACHENKO, N.F.; YAROSLAVSKAYA, N.V.;
RAYKHSHTADT, G.N.; SHVARTSMAN, M.N.

Studies on results of smallpox vaccination. Vop.virus. 6 no.2:
189-196 Mr-Apr '61. (MIRA 14:6)

1. Moskovskiy institut epidemiologii, mikrobiologii i gigiyeny
i sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo rayona
Moskvy.

(SMALLPOX)

RAYKHSHTAT, G.N.; LEYKINA, R.F.; KARASEVA, M.F.; KARPOVA, G.V.; GEDE, E.O.;
LOMAKINA, A.Ye.

Study of colienteritis occurrence in day nurseries. Zhur. mikrobiol.,
epid. i immun. 40 no.11:143 N '63. (MIRA 17:12)

1. Iz sanitarno-epidemiologicheskoy stantsii Sverdlovskogo rayona
Moskvy.

RAYKHSHTAT, G.N.; SHAPIRO, A.A.; SHUSTOVA, N.G.

Outbreak of whooping cough in a kindergarten. Zhur. mikrobiol., epid.
i immun. 41 no.9:142 S '64. (MIRA 18:4)

1. Sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo rayona
Moskvy.

RAYKHSHTAT, G.N.

Significance of other intestinal diseases in the epidemiological analysis of dysentery. Zhur. mikrobiol., epid. i immun. 40 no.6:123-126 Je '63. (MIRA 17:6)

1. Iz Sanitarno-epidemiologicheskoy stantsii Sverdlovskogo rayona, Moskva.

RAYKHSHTAT, G.N.; SHAPIRO, A.S.; TKACHENKO, A.M.; STYCHINSKIY, G.A.

Diphtherial bacteria carrier state among immune children in a
collective. Zhur. mikrobiol., epid. i immun. 40 no.9:140 S'63.
(MIRA 17:5)

1. Iz Sanitarno-epidemiologicheskoy stantsii Sverdlovskogo rayona
Moskvy.

RAYKHEMTAT, G.N.; LEYKINA, N.F.; KYUMINA, M.G.; BERLOVICH, E.A.; KARASEVA, M.F.

Bacteriological examination of children admitted to day nurseries
as an additional method for early detection of brought-in dysentery.
Zhur. mikrobiol., epid. i immun. 40 no.9:135 S'63.

(MIRA 17:5)

1. Iz Sanitarno-epidemiologicheskoy stantsii Sverdlovskogo
rayona Moskvy.

VIL'SHANSKAYA, F.L.; KURNOSOVA, N.A.; LARINA, N.M.; KOZHEVITSKAYA,
O.B.; RAYKHSHTAT, G.N.

Data on the etiology and epidemiology of acute intestinal
diseases in adults. Zhur. mikrobiol., epid. i immun. 40
no.2:66-70 F '63. (MIRA 17:2)

1. Iz Moskovskogo instituta epidemiologii i mikrobiologii
i sanitarno-epidemiologicheskoy stantsii Sverdlovskogo
rayona Moskvyy.

RAYKHSHTAT, G.N.; SHAPIRO, A.A.

Eradication of diphtheria in the district. Zhur. mikrobiol.,
epid. i immun. 33 no.7:41-46 JI '62. (MIRA 17:1)

1. Iz sanitarno-epidemiologicheskoy stantsii Sverdlovskogo
rayona Moskvyy.

RAYKHSHTAT, G.N.; SHAPIRO, A.A.

Lowering and eradicating diphtherial morbidity. Zhur.mikrobiol.,
epid.i immun. 33 no.4:125-127 Ap '62. (MIRA 15:10)

1. Iz sanitarno-epidemiologicheskoy stantsii Sverdlovskogo
rayona Moskvyy. (DIPHTHERIA--PREVENTION)

STAROVEROVA, A.G.; RAYKHSHTAT, G.N.

Reactivity of adsorbed diphtheria antitoxin in recent and late periods following immunization. Trudy IEMG no.8:60-83 '61.
(MIRA 17:2)

1. Moskovskiy nauchno-issledovatel'skiy institut epidemiologii, mikrobiologii i gigiyeny (for Staroverova). 2. Sanitarno-epidemiologicheskaya Sverdlovskogo rayona (for Raykhshtat).

PETROV, V.I.; GOELEVSKAYA, M.V.; SYRKASHEVA, A.V.; RAYKHSHTAT, G.N.;
SHAPIRO, A.A.; BERLOVICH, E.A.; KARASEVA, M.F.; RYUMINA, M.G.
LEYKINA, R.S.; BROKER, T.N.; GITARIN, D.Yu.; MOSKOVENKO, D.F.;
STASILEVICH, Z.K.; REUT, A.I., ALIYEVA, S.G.

Annotations. Zhur. mikrobiol., epid. i immun. 40 no.2:109-112
F '63. (MIF 7:2)

1. Iz Dnepropetrovskoy gorodskoy sanitarno-epidemiologicheskoy
stantsii (for Petrov). 2. Iz Saratovskogo meditsinskogo instituta
i Saratovskoy gorodskoy sanitarno epidemiologicheskoy stantsii
(for Godlevskaya, Syrkasheva). 3. Iz sanitarno-epidemiologicheskoy
stantsii Sverdlovskogo rayona Moskovy (for Raykhshtat, Shapiro, Berlovich,
Karaseva, Ryumina, Leykina, Broker). 4. Iz Instituta eksperimental'noy
patologii i terapii AMN SSSR (for Stasilevich). 5. Iz Belorusskogo
sanutarni-gigiyenicheskogo instituta (for Reut). 6. Iz Uzbekskogo
nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta
(for Aliyeva).

STAROVEROVA, A.G.; KRUTKOVA, A.S.; RAYKHSHTAT, G.N.; TIKHOMIROVA, L.I.

Epidemiological role of carriers of toxigenous diphtheria
cultures under various epidemiological conditions. Trudy
IEMG no.8:101-112 '61 (MIRA 17:2)

1. Moskovskiy nauchno-issledovatel'skiy institut epidemiologii,
mikrobiologii i gigiyeny (for Staroverova, Krutkova). 2. Sanitarno-
epidemiologicheskaya stantsiya Sverdlovskogo i Kominternovskogo
rayonov (for Raykhshtat, Tikhomirova).

RAYKHSHTAT, G.N.; SHAPIRO, A.A.

Seroprevention of influenza in pediatric institutions.
Trudy IEMG no.8:204-210 '61. (MIRA 17:2)

1. Sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo
rayona Moakvy (glavnyy vrach M.G. Gilel's).

YABLOKOVA, M.L.; RAYKHSHTAT, G.N.; TELESHEVSKAYA, E.A.; TOPOLYANSKAYA,
S.I.; GRISHAYEVA, N.A.

Seroprophylaxis for Botkin's disease in children's institutions.
Pediatriia 42 no.5:54-55 My'63 (MIRA 16:11)

1. Iz sanitarno-epidemiologicheskikh stantsiy Sverdlovskogo
Dzerzhinskogo, Kalininskogo, ~~Zhdanovskogo~~ rayonov Moskvy i Mos-
kovskogo instituta epidemiologii i mikrobiologii Ministerstva
zdravookhraneniya RSFSR.

*

STANDAROV A.D.; LAMBERT, C. G.P.

Immunological effectiveness of purified toxin of *Clostridium botulinum*. *Izv. mikrobiol., epid. i imm.* 34 no. 11:37-42 N 1971. (1971 12:1)

1. In Novorossiysk instituta epidemiologii i mikrobiologii i sanitarno-epidemiologicheskoy sluzhby Stantsii Sverdlovskogo nayona kazny.

RAYMOND WEIN, B.S.

Absolute differentiation in a space without reference to the axiom
of dimensionality. Dokl. na nauch. konf. 1 no.3:109-114 '62.
(MIRA 16:8)

(Calculus of tensors) (Spaces, Generalized)

L 23614-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACC NR: AP6009554

SOURCE CODE: UR/0413/66/000/005/0109/0110

AUTHOR: Raykhman, Ya. A.; Kusman, Ye. A.; Kuz'michev, G. P.

ORG: none

TITLE: A micromanipulator. Class 49, No. 179586

SOURCE: ¹⁴Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 109-110

TOPIC TAGS: micromanipulator, microdissection, microinjection, electromagnet

ABSTRACT: This Author's Certificate introduces: 1. A micromanipulator for moving a tool in three dimensions by a control lever hinged to the framework with a drive connected to a two-coordinate table which supports the tool and a handwheel which moves in the horizontal plane on a plate in the framework. The device is designed for fast preliminary motion and exact adjustment of the tool by making the drive from the control lever to the two-coordinate table in the form of a system of two separately connected electromagnets: one for coarse and one for fine motion. The first electromagnet is connected through a hinge to the control lever and the second is connected to a pantograph. One of the hinges on the pantograph is connected to the electromagnet for coarse adjustment and the other is connected to the framework. 2. A modification of this micromanipulator in which the two-coordinate table may be fixed in a definite

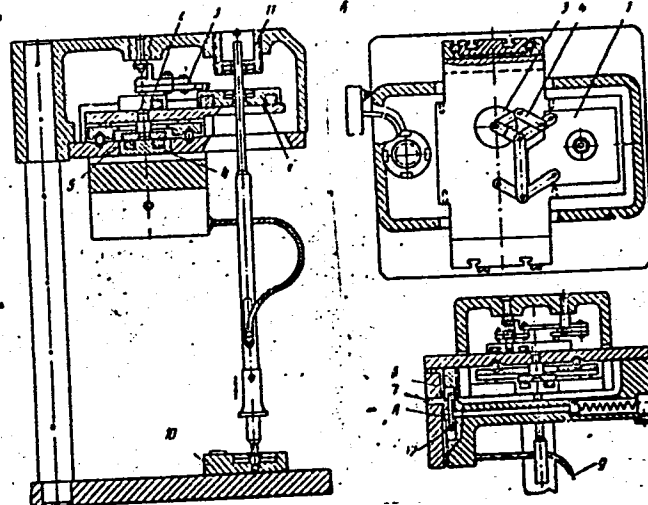
UDC: 621.86.076

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L 23614-66

ACC NR: AP6009554

1--magnet for coarse motion; 2--magnet for fine motion; 3--clamping magnet; 4--pantograph mechanism; 5--armature of the clamping magnet; 6--working table; 7--roller; 8--pulley; 9--cable; 10--control handwheel; 11--ring; 12--cam



position by a clamping electromagnet in the framework. This electromagnet acts on an armature which is mounted on the two-coordinate table and connected to the electromagnet for coarse and fine adjustment in such a way that both these electromagnets are

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ACC NR: AP6009554

disconnected when the armature is connected. 3. A modification of this micromanipulator in which the tool is moved in the vertical plane by a special mechanism made in the form of a working stage. This stage is supported by a roller on a specially shaped cam in the framework with a pulley which is connected by a cable to the control hand-wheel. 4. A modification of this micromanipulator in which the scale of motion for the two-coordinate table is preset by changing the lever arms. In the framework is a threaded ring with a ball support for the control lever.

SUB CODE: 13/

SUBM DATE: 19Aug63/

ORIG REF: 000/

OTH REF: 000

Card 3/3 *fv*

Nuclear Sci Abs
V-8, Jan 15, 1954
Chemistry

INORGANIC PEROXIDES. 11. THE HIGHER OXIDES OF POTASSIUM. I. A. Kazarnovskii and S. I. Raikhshteln.
 Translated by Bonnie [E.] Cushman from *Zhur. Fiz. Khim.* 21, 245-55(1947) 18p. (UCRL-Trans-99; AEC-tr-1029)
 The oxides KO_2 , RbO_2 , and CsO_2 and the molecular ion O_2^- were examined. Tensimetric investigations and density and refractive measurements showed that only three oxides of K exist: K_2O , K_2C_2 , and KO_2 . The K_2O_2 reported by some investigators is a mixture of K_2O_2 and KO_2 . The crystal structures of KO_2 , RbO_2 , and CsO_2 were determined. The heat of formation of K_2O_2 was found to be 117.0 kcal. (J.S.R.)

⁴
Chem
 (2)

ME
 7-27-54

MAKHLIN, S. I.

"An Apparatus for Determination of Dissociation Pressure," Zhur. Fiz. Khim., 21, No. 3, 1947; "Inorganic Peroxides: XI. The Higher Oxides of Potassium," ibid.

1949, I. I. and Kuznetsov, I. I.

"Apparatus for Determining the Assistance of This Association," 1949
Kondeloyev Prize.

Technik AS USSR 3/50
M-12748

MAKABITSA, S. I. and MAKABITSA, I. A.

"Higher Oxides of Potassium," 1945 Mendeleev Prize

Vestnik AS SSSR 3/50

U-12748

RAYKHSHTEYN, S. I.

Chem Kinetics of the spontaneous decomposition of potassium ozonides I. A. Kazarnovskii, S. I. Rasklahteln, and L. N. Bykova. *Doklady Akad. Nauk S.S.S.R.* 108, 641-4 (1966).—Alkali metal ozonides are red, cryst. substances of the general compn. $M^+O_3^-$, formed with the recently identified O_3^- ion (C.A. 43, 5554h; Whaley and Kleinberg, C.A. 45, 4591h). The ozonides are thermally unstable and slowly decomp. at room temp. into alkali metal peroxides and O_2 . The kinetics of the decompn. are discussed. The reaction proceeds with a measurable velocity at room temp. and at temps. below 0° . The rates of decompn. were measured at 50, 20, 0, -9, and -18° . The original substance contained 92.9% KO_3 , 5.2% $KOH \cdot H_2O$, and 0.10% KOH . The rate of decompn. was detd. by the vol. of O_2 evolved, and the results are presented graphically. The process is autocatalytic, with induction periods at 20, 0, -9, and -18° , resp., of 1.87, 20, 54, and 205 days. The induction periods were well reproducible. The activation energy (Arrhenius formula) was 23.4 kcal. at 50-20°, 22.9 kcal. at 20-0°, and 21.6 kcal. at 0 to -18° . Hypothetical explanations are offered of the induction period and of the active state. W. M. Sternberg

3

GM

KAZARNOVSKIY, I.A.; RAYKHSHTeyN, S.I.; BYKOVA, L.N.

Investigating the mechanism of spontaneous decomposition of
potassium ozonide by the magnetic method. Dokl. AN SSSR 123
no.3:475-478 N '58. (MIRA 11:12)

1. Chlen-korrespondent AN SSSR (for Kazarnovskiy). 2. Nauchno-
issledovatel'skiy fiziko-khimicheskiy institut imeni L.Ya.
Karpova.

(Potassium ozonide)

5(2)

AUTHORS: Kazarnovskiy, I. A., Corresponding SOV/20-123-3-26/54
Member, Academy of Sciences, USSR, Raykhshteyn, S. I.,
Bykova, L. N.

TITLE: Investigation of the Reaction Mechanism of Spontaneous
Decomposition of Potassium Ozonide by the Magnetic Method
(Issledovaniye mekhanizma reaktsii samoproizvol'nogo raspada
ozonida kaliya s primeneniye magnitnogo metoda)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 3, pp 475-478
(USSR)

ABSTRACT: It is seen from the kinetics of the reaction under review (Ref 1)
that this reaction takes place according to the equation
$$2 \text{KO}_3 = 2 \text{KO}_2 + \text{O}_2 + 11.6 \text{ kcal.}$$

It is autocatalytic and its
induction period amounts at 18, 0, -9, -18°, respectively, to
1.67, 20, 54, 205 days (24 hours each), respectively. In the
subsequent active period the decomposition rate of potassium
ozonide increases rapidly; the activation energy is 22-23 kcal/mol.
The magnetic measurements were carried out at the same time as
the kinetic ones at 18-20° and 0°. As is known, the initial and
final product are of paramagnetic nature. Both products had

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Investigation of the Reaction Mechanism of SOV/20-123-3-26/54
Spontaneous Decomposition of Potassium Ozonide by the Magnetic Method

χ_g -values which were largely in accordance with previous data (Refs 2-4). Table 1 and figure 1 present the results of some measurements (in which V. I. Smirnova assisted). The deviations from the additivity indicate the formation of a highly paramagnetic intermediate product. This might be most probably the atomic oxygen the magnetic susceptibility of which exceeds several times that of KO_3 and KO_2 . An intermediate formation

of oxygen atoms was confirmed by the separation of ozone traces which had oxidized the surface of the mercury in the manometer tube. The quantity of atomic oxygen in various stages of the process may be determined according to the data concerning magnetism and according to the weight of the solid reaction products. For this purpose equations are suggested. The values computed according to them (for one of the experiments) are presented in table 2. It may be seen from them that the content of atomic oxygen in the solid phase increases at the beginning of the decomposition, surpasses a maximum at a KO_3 decomposition

of 60% approximately, and afterwards drops to zero at a 100% decomposition.

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Investigation of the Reaction Mechanism of SOV/20-123-3-26/54
Spontaneous Decomposition of Potassium Ozonide by the Magnetic Method

When the maximum is exceeded, the solid phase contains about 15% of the total amount of atomic oxygen; it attains its maximum quantity (up to 25%) towards the end of the induction period and at the beginning of the active period. This result confirms the hypothesis (Ref 1) regarding the nature of the induction period which is based on the theory of defective crystalline structures. Further experiments have proved that: a) the formation of molecular oxygen forms a first order reaction with respect to atomic oxygen (Fig 2). Therefore, a recombination mechanism is improbable, and a reaction of the oxygen atoms with the ozonide ions is more probable: $O + O_3^- = O_2^- + O_2$. The further kinetic analysis displays the same regularity for the formation rate of atomic oxygen as that valid for the separation rate of molecular oxygen: a curve with a distinctly marked topochemical maximum (Fig 3). Thus, both of the elementary decomposition processes of KO_3 into KO_2 and oxygen take place mainly at the phase-separation boundary. There are 3 figures, 2 tables, and

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Investigation of the Reaction Mechanism of SOV/20- 123- 3- 26/54
Spontaneous Decomposition of Potassium Ozonide by the Magnetic Method

5 references, 3 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im.
L. Ya. Karpova (Scientific Physico-Chemical Research Institute
imeni L. Ya. Karpov)

SUBMITTED: August 14, 1958

Card 4/4

AUTHOR: Raykhtsaum, A.G., Engineer

28-1-20/42

TITLE: Methods of Foundation Soil Investigation (Metody issledovaniya gruntov)

PERIODICAL: Standartizatsiya, # 1, Jan-Feb 1957, p 64-65 (USSR)

ABSTRACT: The article deals with laboratory investigations of physical and mechanical soil properties for calculating permissible loads for construction of buildings. Amendments are suggested to parts of the following standards: "ГОСТ 5179-49"-method of measuring humidity; "ГОСТ 5183-49"-method of plastic limit evaluation; "ГОСТ 5184-49"-method of liquid limit evaluation. At the present time only a part of the soil testing methods are standardized. Essentially the same operations are used in methods of testing the undisturbed soil, but the operations are performed differently and therefore the results are also different. The production of instruments for these investigations is inadequate. Many laboratories have incomplete equipment of different types which requires different testing methods. For standardization, several of the simplest and most versatile methods and a corresponding quantity of the necessary instruments, simple if possible, should be chosen.

Card 1/1

ASSOCIATION: Laboratoriya po issledovaniyu gruntov Stalingiproshakhta

AVAILABLE: Library of Congress

RAYKH TSAUM, Arkadiy Grigor'yevich; ZHERDEV, A.P., redaktor; RYKOV, N.A.,
redaktor; ~~MADEINSKAYA~~, A.A., tekhnicheskii redaktor.

[Technical control at coal concentration plants] Tekhnicheskii
kontrol' na ugleobogatitel'nykh fabrikakh. Moskva, Ugletekhnizdat,
1955. 106 p. (Coal preparation) (MLRA 9:4)

RAYKHTSAUM, A.G., inzhener.

Necessity of a uniform scientific and technical terminology.
Standartizatsiia no.5:73 S-0'54. (MLRA 8:2)
(Engineering—Terminology)

RAYKHTSAUM, A.G., inzhener.

Soil testing methods. Standartizatsiia no.1:64-65 Ja-F '57.

(MLRA 10:5)

(Soil mechanics)

1. RAYKHTSAUM, A. G.
2. USSR (600)
4. Science
7. Chemical laboratories for coal research, Moskva, Ugletekhizdat, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

RAYKI, SHANDOR

"Methods of Raising the Vitality of Eye." Moscow Order of Lenin Agriculture Academy imeni K. A. Timiryazev, Moscow, 1955. (Dissertation for the Degree of Candidate of Biological Sciences)

SO: M-972, 20 Feb 56

13.2900(1159, 3103)

311.6

S/103/62/023/003/013/016
D201/D301

AUTHORS: Zhozhikashvili, V.A., and Raykin, A.L. (Moscow)
TITLE: Evaluation of system reliability with fault signalling
PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 3, 1962,
392 - 397

TEXT: The authors describe the procedure in determining the reliability of a system taking into account the probability of its use at any arbitrary instant t under the condition that a part of all possible faults in the system can be signalled. The following data are given and assumptions made: 1) The system consists of elements, the faults of which do not affect other elements. 2) The probability of the given system being in operation at instant t is given by a function $Y(t)$. The conditional probability that the system, not in use at instant 0, will begin before t , is given as function $X(t)$ 3) The faults are determined by the duration of the full operative condition of the system including the time of readiness. 4) The probability distribution of reinstating the signalled and non-signalled

Card 1/3

Evaluation of system reliability ...

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D201/D301

led fault are given by functions $W_1(t)$ and $W_2(t)$ respectively. 5) Faults occurring during servicing are not counted. 6) The signalling is 100 % reliable. Three cases are possible: a) When it becomes impossible to check the remaining part of the system after the signalled fault had been put right; b) Until the beginning of signalled fault rectification it is possible to check the whole system and to put right any additional faults thus found; c) Same as in (b) but possible only after the signalled fault final rectification. For all three cases the probability of system failure at the end of an arbitrary time interval from the simultaneous effect of all signalled faults is derived and for system (a) the average time of faultless operation of the system for the greatest probability of failure is determined. The following conclusions are reached: 1) The evaluation of the system reliability in the presence of operation control and fault signalling, should be, and is, based on the wider than normal notion of reliability of a continuously operating system. The probability of its failure is related to the probability of its utilization. 2) Such an evaluation may be useful in determining and choosing means of improving the system re-

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Evaluation of system reliability ...

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D201/D301

liability and methods of its utilization. 3) The solved concrete example shows that the average time interval between the failures also depends on the intensity with which the system is being introduced into operation and that of fault rectification. In the limit, by reducing the fault rectification time to zero, a maximum average time between failures may be obtained, determined only by the intensity with which the system is being made operational and by the intensity with which the non-controlled faults occur in the system. There are 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: R.H. Wilcox, Serviceability: Complement to Reliability 4th Nation Confer. on Military Electr., 1960.

SUBMITTED: August 5, 1961

X

Card 3/3

RAYKIN, A. L.

List of literature on problems concerning system reliability
for 1961. Avtom. i telem. 23 no.9:1270-1275 S '62.
(MIRA 15:10)

(Electronic industries—Quality control)
(Electronic apparatus and appliances—Bibliography)

RAYKIN, A. L. (Moskva)

Determination of optimum system reserve with consideration of
the damage of blocks in reserve operation. Avtom. i telem. 23
no.11:1536-1541 N '62. (MIRA 15:10)

(Automatic control)

(Electronic apparatus and appliances—Quality control)

BRONSHTEYN, O.I. (Moskva); RAYKIN, A.L. (Moskva); RYKOV, V.V. (Moskva)

One lane queueing system with losses. Izv. AN SSSR. Tekh. kib.
no.4:45-51 J1-Ag '65. (MIRA 18:11)

RAYKIN, A.L. (Moskva)

Redundancy optimization with presence of limitations. Avtom. i
telem. 26 no.2:388-398 F '65. (MIRA 18:4)

S/103/63/024/004/012/014
D201/D308

AUTHOR: Raykin, A.L. (Moscow)

TITLE: Reliability of reserve circuits with continuously switched-in redundancy elements, taking into account the redistribution of loads or voltages

PERIODICAL: Avtomatika i telemekhanika, v. 24, no. 4, 1963, 558-562

TEXT: The author analyzes parallel and serial passive stand-by circuits composed of n identical components; the circuits have to operate with a total load or voltage which is evenly distributed between the components. If one component fails, its share of the load or voltage is automatically taken over by the components remaining in the circuit. A formula for the reliability of the above circuit configuration is derived for a given dependence between the failure rate of components (this rate assumed to be constant in time) and the load power or voltage. It is shown that such circuits may be related to a circuit with $(n-1)$ duplication of stand-by com-
Card 1/2

Reliability of reserve ...

S/103/63/024/004/012/014
D201/D308

ponents. There are 2 figures.

SUBMITTED: July 28, 1962

Card 2/2

50 c
I 41182-65 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(l) Pf-4
ACCISSION NR: AP5004677 S/0115/64/000/009/0058/0059
70
18
8

AUTHOR: none

TITLE: Fourth scientific and technical conference on "Cybernetics for the improvement of measurement and inspection methods"

SOURCE: Izmeritel'naya tekhnika, no. 9, 1964, 58-59

TOPIC TAGS: cybernetics, electric measurement, electric quantity instrument, digital computer, electronic equipment, electric engineering conference

ABSTRACT: The conference was held 1-4 July at the All-Union Scientific Research Institute of Metrology by the Section of Electrical Measurements of the Council on the Problem of "Scientific Instrument Making" of the State Committee on Coordination of Scientific Research Work in the USSR together with the All-Union Scientific Research Institute of Electrical Measurement Instruments and the Leningrad Regional Administration of the Scientific and Technical Division of the Instrument Making Industry. More than 400 delegates from 29 cities of the country participated. Fifty-seven reports were heard and discussed. Reports were given by: P. V. NOVITSKIY (Leningrad)--"Definition of the Concept of Informational Error in Measurement and its Importance in Practical Use" and "On the Problem of the Average Informational Criterion of Accuracy Throughout the Entire Scale of an Instrument"; Ya. A.

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ACCESSION NR: AP5004677

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KUPERSHCHIK (Moscow)--"On Determination of the Criteria of Accuracy for Measurement Devices"; S. M. MANDEL'SHTAM (Leningrad)--report on a new criterion of accuracy of measurement instruments; P. P. PARSHIN (Leningrad)--report on optimization when using Fourier transforms on electronic digital computers; S. P. DMITRIYEV, G. Ya. DOLGINTSEVA and A. A. IGATOV (Leningrad)--proposal of a new method for solving problems of optimum filtering for non-stationary random signals and interference; I. B. CHELPAKOV--"Calculation of the Dynamic Characteristics of an Optimum Complex Two-Channel System which Uses Signals from a Position Meter and from a Speed Meter"; R. A. POLUEKTOV (Leningrad)--"Optimum Periodic Correction in the Measurement of Continuous Signals"; S. P. ADAMOVICH (Moscow)--"Analysis and Construction of Devices for Correction of Non-linearity and Scaling for Unitary Codes; G. V. GORELOVA (Taganrog)--"A Method for Statistical Optimization in Graduating the Scales of Electrical Measuring Instruments"; M. A. ZEMEL'MAN (Moscow)--"Analog-Digital Voltage Converter with Automatic Error Correction"; B. N. MALINOVSKIY, V. S. KALENCHUK and I. A. YANOVICH (Kiev)--"Automatic Monitoring of the Parameters of the Electrical Signals of Complex Radio and Electronic Equipment"; V. P. PEROV (Moscow)--"Operational Cybernetics as an Independent Scientific Specialization"; Ye. N. GIL'BO (Leningrad)--"On the Problem of Effective Non-linear Scales"; A. I. MARKSLOV (Moscow)--"Devices for Preliminary Processing of the Results of Measurements Presented in the Form of

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ACCESSION No: AP500677

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Graphic Recordings For Subsequent Introduction of the Information into Universal Digital Computers"; O. M. MOGILEVSKY and S. S. SOKOLOV (Leningrad)--"On a Method for Reducing Excess Information"; T. V. NIKOLAYEVA (Leningrad)--"A Device for Temporal Discretization of Continuous Signals"; A. A. LYOVIN and M. L. BULIS (Moscow)--"Optimization of the Transmission of Telemetric Information as a Means for Raising the Efficiency and Eliminating Interference"; D. E. GUKOVSKIY (Moscow)--"On a Statistical Approach to the Detection of Events in Automatic Inspection"; M. I. LANIN (Leningrad)--"Method for Calculating the Holding Time of Communications in a Centralized Inspection System or Constant Servicing Time"; O. N. BRONSHTEYN, A. L. RAYKIN and V. V. RYKOV (Moscow)--"On a Single-Line Mass Service System with Losses"; V. M. SHLYANDIN (Penza)--report on circuit designs for direct compensation electrical digital measuring instruments; A. N. KOMOV (Novocherkassk)--report on a new method for compensation of digital bridges; M. N. GLAZOV (Leningrad)--report on the problem of voltage-to-angular rotation conversion; V. S. GUTNIKOV (Leningrad)--"Methods for Construction of Frequency Capacitance Pickups with a Linear Scale"; R. Ya. SYROPYATOVA and R. R. KHARCHENKO (Moscow)--report on the determination of the amplitude-frequency and phase characteristics of PFM and PWM modulators; Ye. I. TENYAKOV (Novocherkassk)--"The Phototransistor as a Switch for Electrical Measurement Purposes"; N. V. MALYGINA (Leningrad)--a report on ways for making universal equipment for measurement of current, voltage and power; P. P. ORNATSKIY and V. I. ZOZULYA (Kiev)--reports on the construction of static voltmeters, wattmeters, and

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ACCESSION NR: AP5004677

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phase meters; A. V. TRIKHANOV, I. G. SMYSHLYAYEV, N. I. SABLIN, V. M. RAZIN and V. A. GORBUNOV (Tomsk)--report on a device for automatic processing of the measurements of vibration amplitude of pneumatic hammers; L. K. RUKINA and V. G. KNORRING (Leningrad)--report on the development of a digital compensator for measuring pressure, force, etc.; N. B. DADUKINA (Leningrad)--report on a method for constructing frequency pickups for gas analysis; Yo. M. KARPOV, V. A. BRAZHENIKOV and B. Ya. LIKHITSINDER (Kuybyshev)--reports on analysis and recording of boring speeds; Yu. V. PSHENICHNIKOV (Kuybyshev)--"A High Speed Voltage-to-Digital Code Converter for ac Pickups"; G. P. VIKHROV and V. K. ISAYEV (Vilna)--"A Highly Accurate Digital Peak-to-Peak Voltmeter"; and S. M. PERSIN (Leningrad)--"A Low Level Analog-Digital Voltage Converter."

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EE, EO

NO REF SOV: 000

OTHER: 000

JPRS

me
Card 4/4

RAYKIN, A. L.

"Estimates of structural communication losses in systems of sequential gathering of information."

Report presented at the Seminar on reliability problems [Reliability Section of the Scientific Council of Cybernetics, Presidium AS USSR] 28 Jan-25 Feb 63

RAYKIN, A.L. (Moskva); RUBTSOV, A.F. (Moskva); PENIN, V.S. (Moskva)

Reliability of technological systems with regularly renewable
reserve. Izv. AN SSSR. Tekh. kib. no.4:13-18 J1-Ag '64.

(MIRA 17:12)

RAYKIN, A.L.

Predicting the reliability of instruments. Priborostroenie
no.6:23-25 Je '63. (MIRA 16:8)

(Instrument--Testing)

RAYKIN, A.L. (Moskva)

Structural reliability of sequential information collecting systems.
Avtom. i telem. 24 no.9:1260-1266 S '63. (MIRA 16:9)
(Information storage and retrieval systems)

ACCESSION NR: AT4031774

S/0000/63/000/000/0237/0241

AUTHOR: Zhozhikashvili, V. A.; Raykin, A. L.

TITLE: Determination of the suitable operating conditions of a system reserve unit

SOURCE: AN SSSR. Strukturnaya teoriya releyny*kh ustroystv (Structural theory of relay devices). Moscow, Izd-vo AN SSSR, 1963, 237-241

TOPIC TAGS: control system, automatic control, feedback, relay, reserve unit, system reliability, system design

ABSTRACT: A well-known method for enhancing system reliability is the introduction of structural redundancy (in specific cases, the duplication of its elements or units). In the present article, a system is considered which consists of a basic and stand-by (reserve) unit, and the mission of which is the uninterrupted fulfillment of its assigned functions. With the basic unit functioning normally, the stand-by is in the condition of 'cold' reserve, characterized by an outage time distribution law differing from the outage time distribution of the basic equipment, and is put into operation only in the event of a failure of the basic unit. Outages of the working unit are signaled and eliminated by service personnel. It is further assumed that there is a fault detector which activates the stand-by switch-on

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ACCESSION NR: AT4031774

elements (Fig. 1 of the Enclosure). Considering, for the sake of simplicity, these supplementary elements to be absolutely reliable, the authors have attempted to determine the advantages of this method of stand-by (reserve), as they result from the less exacting conditions of the stand-by unit, as well as its shortcomings, which are connected with the lack of information regarding the state of the stand-by unit elements when the basic equipment is operating properly. The discussion concerns systems, the operational "ready" time of which is negligibly small. In a general case, the solution of the problem presupposes arbitrary time distribution laws for the faults of the stand-by and basic units and of the fault restoration times. In this paper, a uniform case is considered, in which these distribution laws have a constant conditional probability density, with instantaneous switch-on of the reserve equipment. With this formulation, the behavior of the system represents a random Markov process with four states, designated as follows: (11) - both units in working order, with the basic unit fulfilling its assigned functions; (01) - basic unit "but" and under repair, with the stand-by unit in order and fulfilling the functions of the basic; (10) - basic unit in order and functioning properly, with the stand-by unit "but", but with no information to that effect; (00) - both units out, indicating a failure of the entire system. The possibilities of transitions from one state to the other and their conditional probability x

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densities are indicated in Fig. 2 of the Enclosure. The author has designated the probabilities of the system being in these states as time functions $P_{11}(t)$, $P_{10}(t)$, $P_{01}(t)$, and $P_{00}(t)$, respectively, and has also introduced the notation λ_1 and λ_2 for the intensities and conditional probability densities of faults in the basic and stand-by units, respectively, and μ = the speed of fault restoration. Thus, a formula is derived

$$T_{\text{mean}} = \frac{\lambda_2 \mu}{\lambda_1 (\rho_1 + \lambda_1) (\rho_2 + \lambda_1)} - \frac{\lambda_1 \lambda_2 (\rho_1 + \lambda_1 + \mu)}{\rho_1^2 (\rho_1 + \lambda_1) (\rho_2 - \rho_1)} + \quad (1)$$

$$+ \frac{\lambda_1 \lambda_2 (\rho_2 + \lambda_1 + \mu)}{\rho_2^2 (\rho_2 + \lambda_1) (\rho_2 - \rho_1)} - \frac{\lambda_1^2 (\rho_1 + \rho_2)}{\rho_1^2 \rho_2^2} \dots$$

for the mean failure-free operating time of a duplicated (stand-by) system as a function of three parameters: the intensity values of the outages of the basic and stand-by units and the speed of restoration. An estimation of this type makes it possible to compare achievable reliability with the reserve facilities employed in different manners. The author has called attention to the need to extend this method to cases of arbitrary fault time distribution laws, since this would permit consideration of the effect of element aging. Orig. art. has: 3 figures and 13 formulas.

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ACCESSION NR: AT4031774

ASSOCIATION: none

SUBMITTED: 14Nov63

DATE ACQ: 16Apr64

ENCL: 02

SUB CODE: IE EC

NO REF SOV: 000

OTHER: 003

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ACCESSION NR: AT4031774

ENCLOSURE: 01

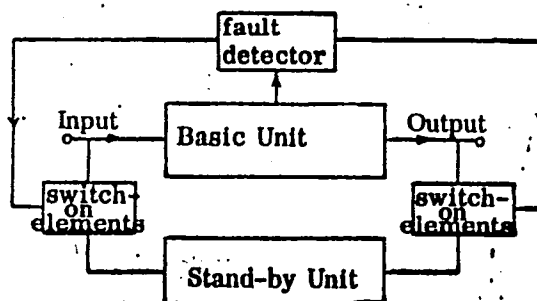


Fig. 1

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ENCLOSURE: 02

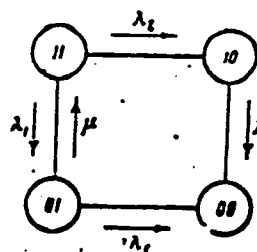


Fig. 2

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ACCESSION NR: AP4035080

S/0103/64/025/004/0582/0584

AUTHOR: Raykin, A. L. (Moscow)

TITLE: Additional evaluations of the redundancy reserving scheme

SOURCE: Avtomatika i telemekhanika, v. 25, no. 4, 1964, 582-584

TOPIC TAGS: cybernetics, reserving elements, system reliability

ABSTRACT: Additional considerations regarding the reserving scheme analyzed by the author earlier (Avtomatika i telemekhanika, v. 24, no. 11, 1964) are supplied. A random Markov process -- intermediate between the Poisson process (cold reserve) and the linear breakdown process (hot reserve) -- corresponds to a reserving scheme in which the reserve units, prior to failure, are kept under conditions differing from the working conditions and the fault intensities are constant. Formulas are developed for the available number of reserve elements and for dispersion as a function of time. "In conclusion, the author wishes to

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ACCESSION NR: AP4035080

thank Yu. F. Kichatov for his valuable advice." Orig. art. has: 8 formulas.

ASSOCIATION: none

SUBMITTED: 19Apr63

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ENCL: 00

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NO REF SOV: 001

OTHER: 002

Card 2/2

L 28057-66 EWA(h)/EWT(d)/EWT(1)/EWP(1) IJP(c) TG/GG/BB/JXT(CZ)/GS

ACC NR: AT6002985

SOURCE CODE: UR/0000/65/000/000/0165/0173

AUTHOR: Kartuzov, Ye. V.; Raykin, A. L.

ORG: none

TITLE: Reliability of ferrite-diode logical elements

SOURCE: Vsesoyuznoye soveshchaniye po magnitnym elementam avtomatiki i vychislitel'noy tekhniki. 9th, Yerevan, 1963. Magnitnyye tsifrovyye elementy (Magnetic digital elements); doklady soveshchaniya. Moscow, Izd-vo Nauka, 1965, 165-173

TOPIC TAGS: logical element, ferrite diode element

ABSTRACT: A mathematical model of reliability of logical elements that have more than 2 inputs is offered. The model permits evaluating the consequences of failures of individual elements due to short-circuits or breaks with an allowance for the role of the element in the equipment. Also, the reasonable minimum number of inputs of the logical element which still guarantees its specified reliability can be determined. The above approach to reliability evaluation is demonstrated by an example of an

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